

## Abstract

The production and selection of precursor mixtures used to produce fine powders and methods for making fine powders using the selected precursor. The precursor mixture comprises at least one metal containing precursor, the metal containing precursor has an average molecular weight of less than 2000 grams per unit mol of the metal, the metal containing precursor has a normal boiling point greater than 350K, and the viscosity of the precursor mixture is between 0.1 to 250 cP. The precursor mixture is processed under conditions that produce a fine powder from the precursor mixture. Fine powders produced are of size less than 100 microns, preferably less than 10 micron, more preferably less than 1 micron, and most preferably less than 100 nanometers.